

## **Abstract of the Invention**

The present invention is an apparatus and method for generating parametric representation of input speech based on a mel-frequency warping of the vocal tract spectrum which is computationally efficient and provides increased recognition accuracy over conventional LP cepstrum approaches. It is capable of rapid processing operable in many different devices. The invention is a speech recognition system comprising linear prediction (LP) signal processor and a mel-frequency linear prediction (MFLP) generator for mel-frequency warping the LP parameters to generate MFLP parametric representations for robust, perceptually modeled speech recognition requiring minimal computation and storage.

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